Circular satellite simulations in STK

ISS:

http://heavens-above.com/orbit.aspx?satid=25544

Apogee: 402 km

Perigee: 400 km

Period: 92.69 min

Inclination: 51.6 deg

Radius of Earth: 6378 km

SMa: 6779 km

E 0.0009977

Coordinates of ground station: 45.457908 and -73.641529

Antennas:

yagi antennas, and for power, I know we can go up to 100W output, but I think we’ll only need 40W or so, maybe less at 300km orbit.  More information about the antennas are on the BOM next to the antennas themselves.  Be sure to use the 146MHz one for your transmitting info

South Atlantic Anomaly: between -50deg. and 0deg latitude and -90deg and 40deg. Longitude

1 deg. of latitude is 111.2 km

SAA’s area is approximately 5560x14456=80375360 km^2